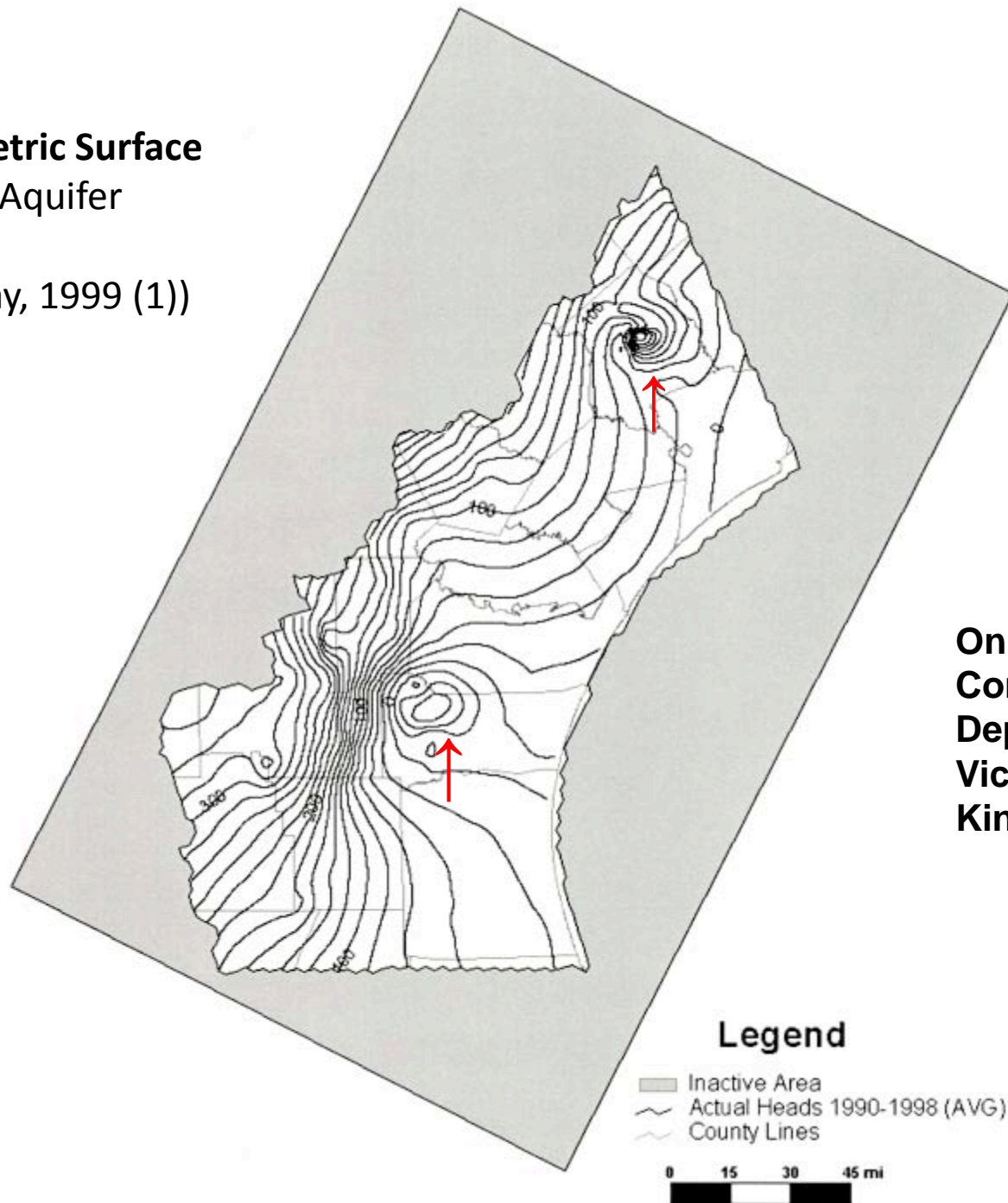


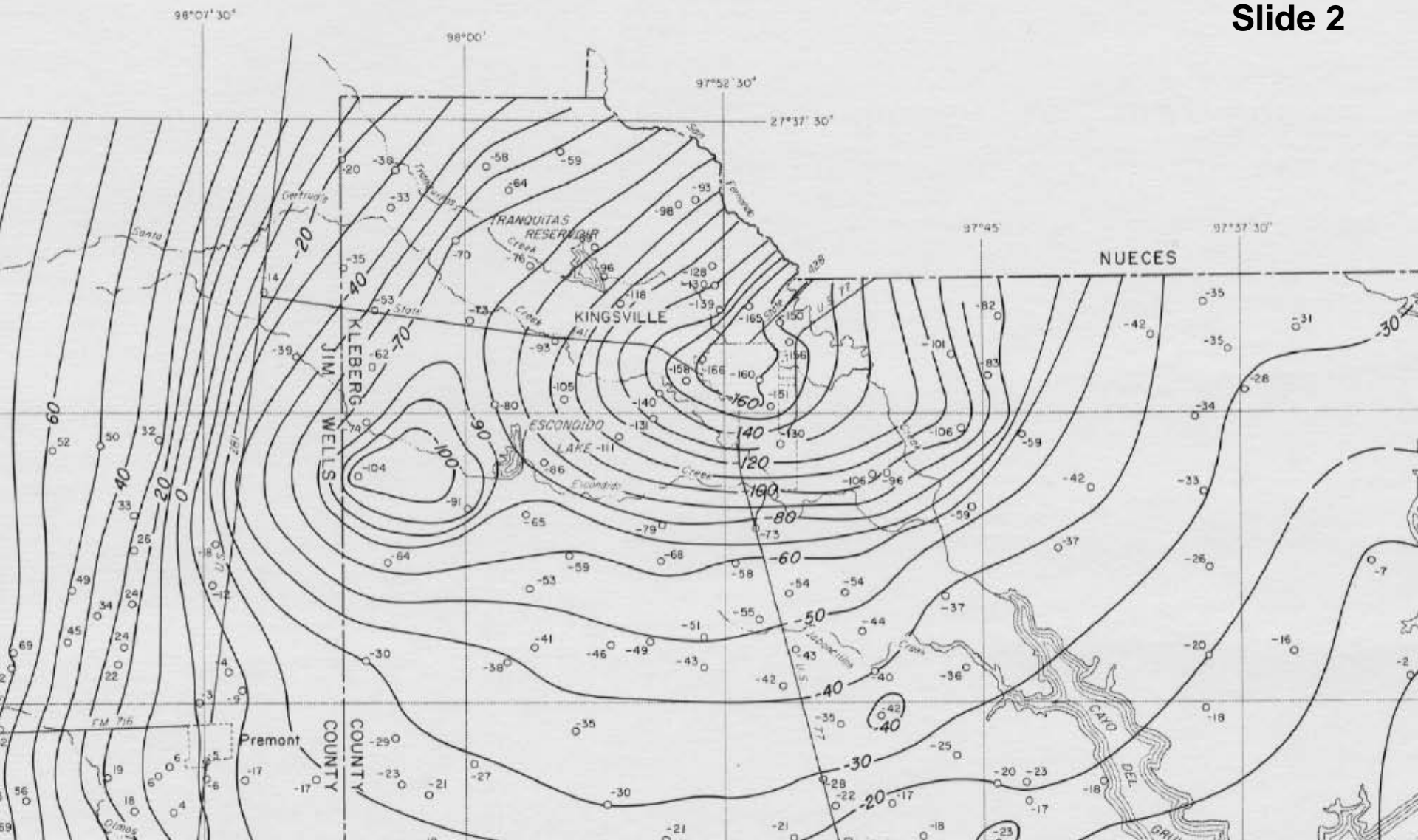
Potentiometric Surface

Evangeline Aquifer

1990

(After R. Hay, 1999 (1))





Approximate Potentiometric Surface, Goliad Aquifer, Kingsville Area, 1968-69 – TWDB Report 173 – 1973 (2)

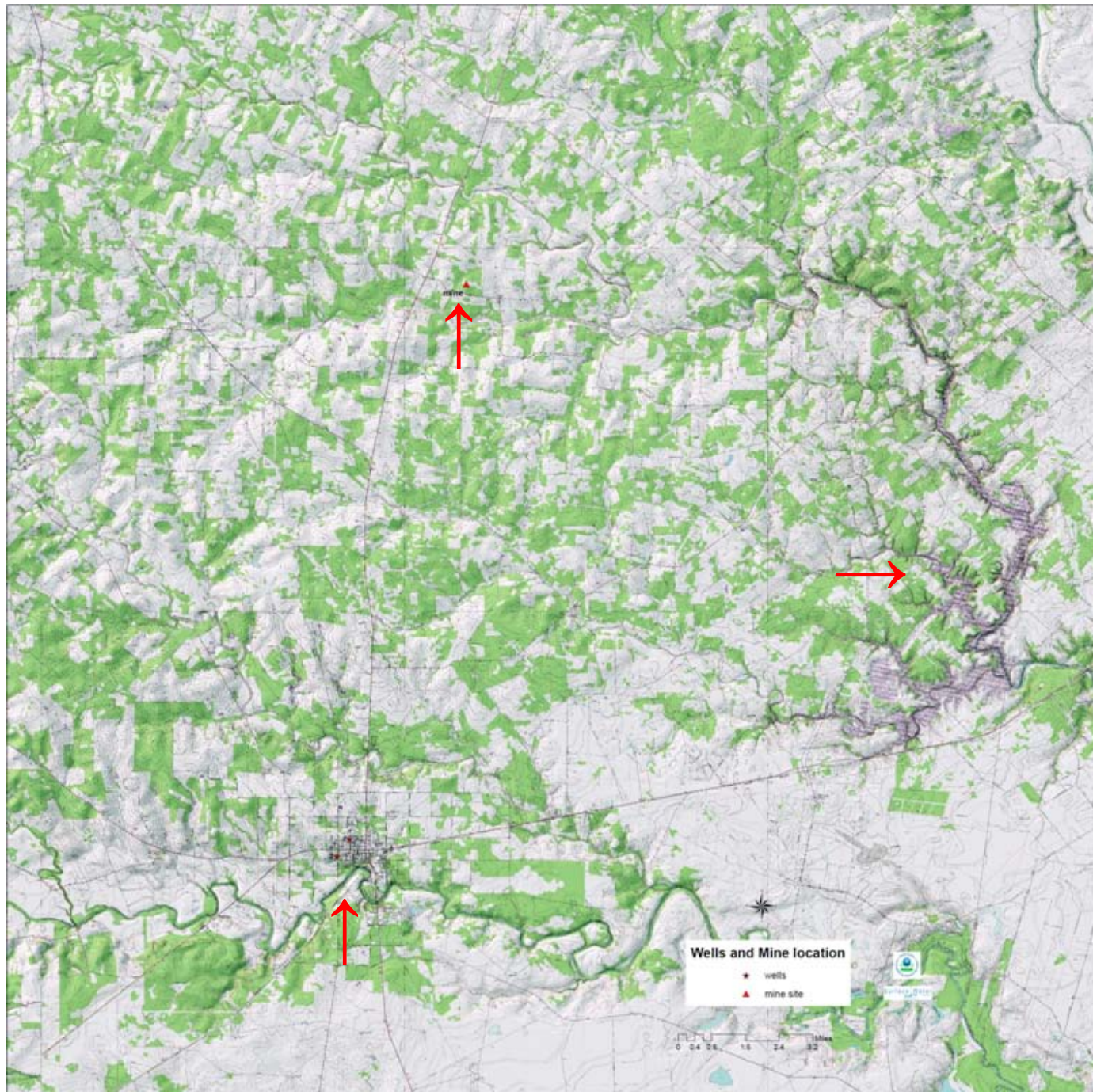
Slide 3



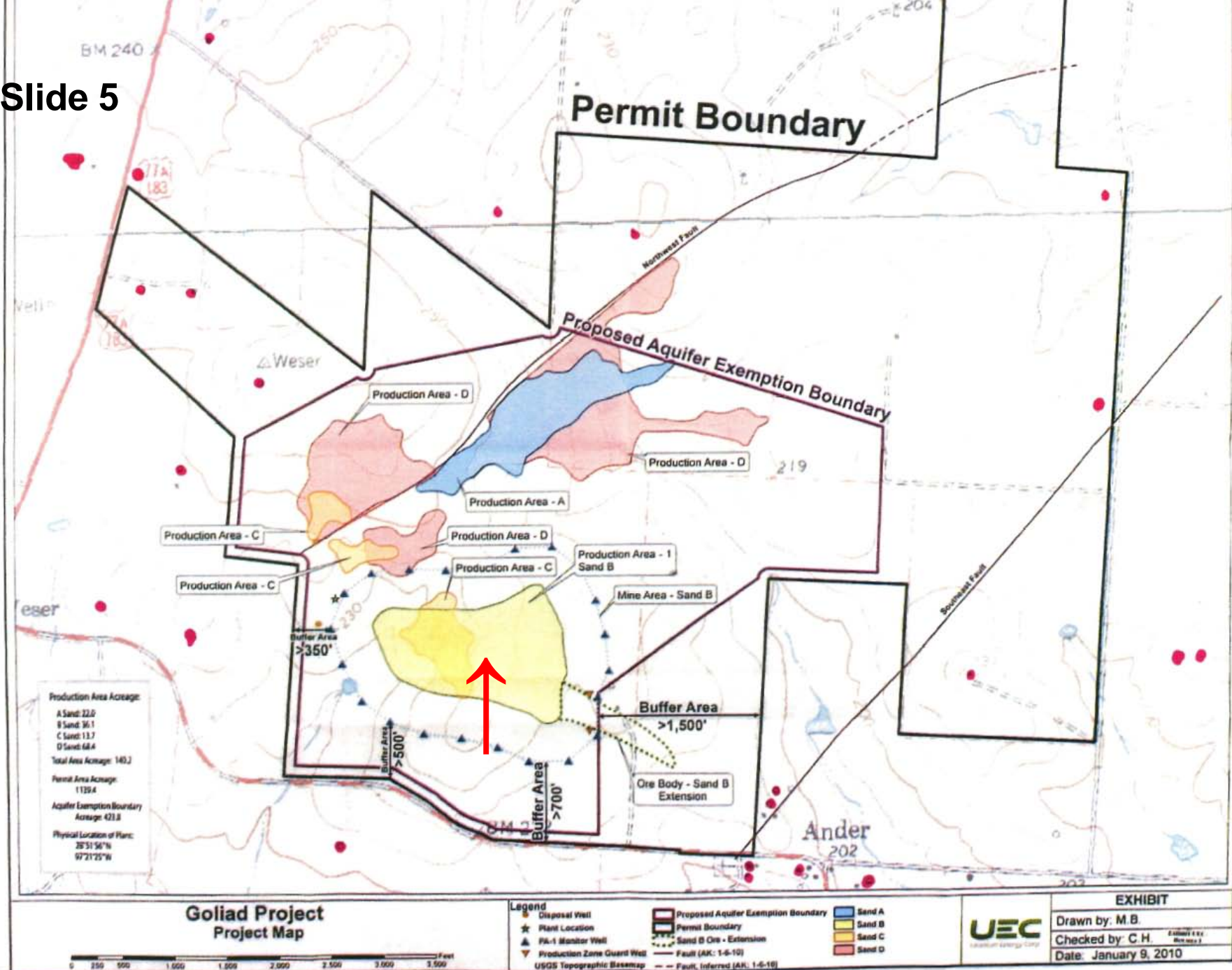
Computed Drawdown for City of Victoria's 14 WSWs Producing at 10% Capacity for 30 Years

Slide 4

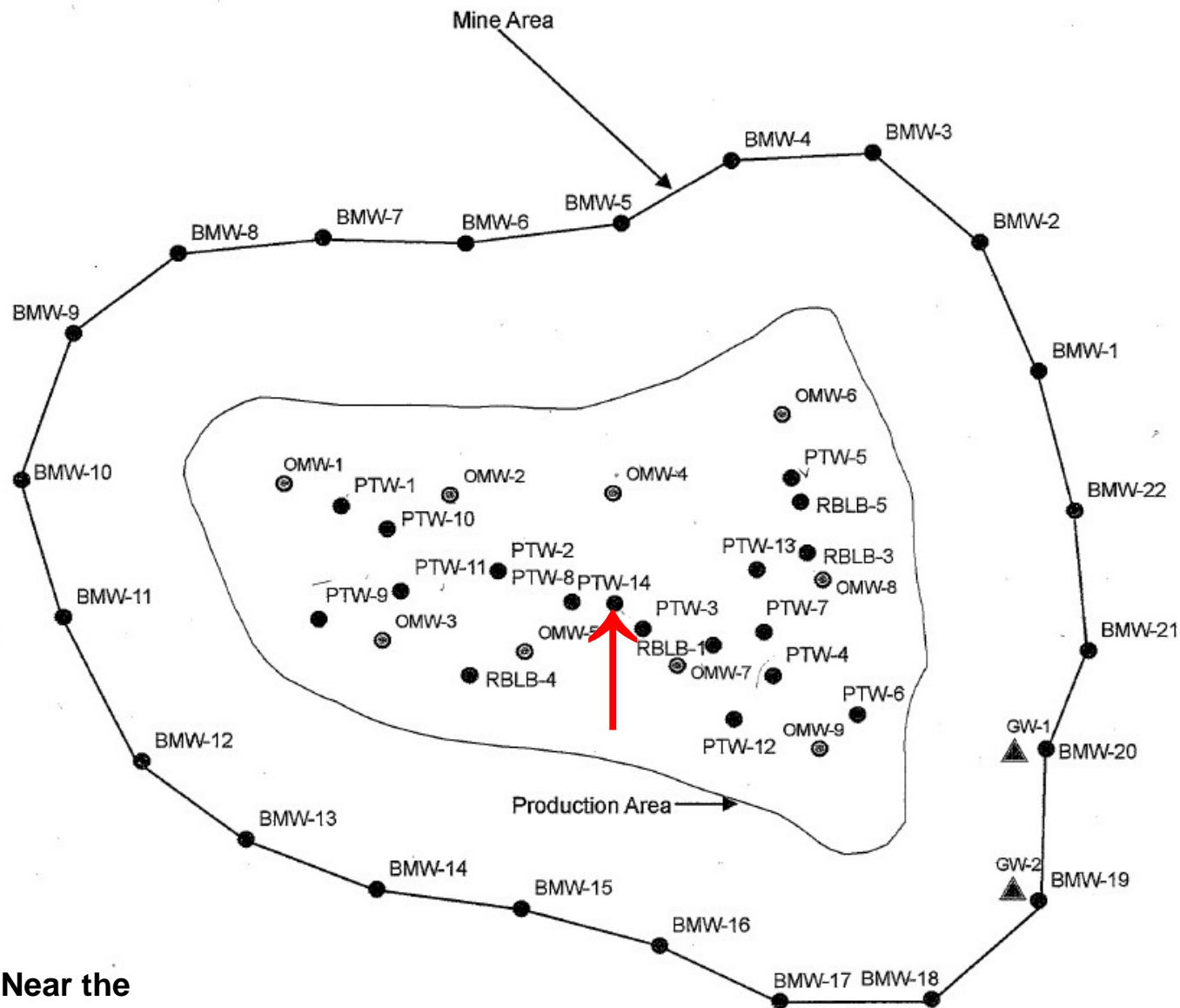
On this Map:
Location of
City of Goliad,
Goliad Project and
Coleto Creek Reservoir



Slide 5

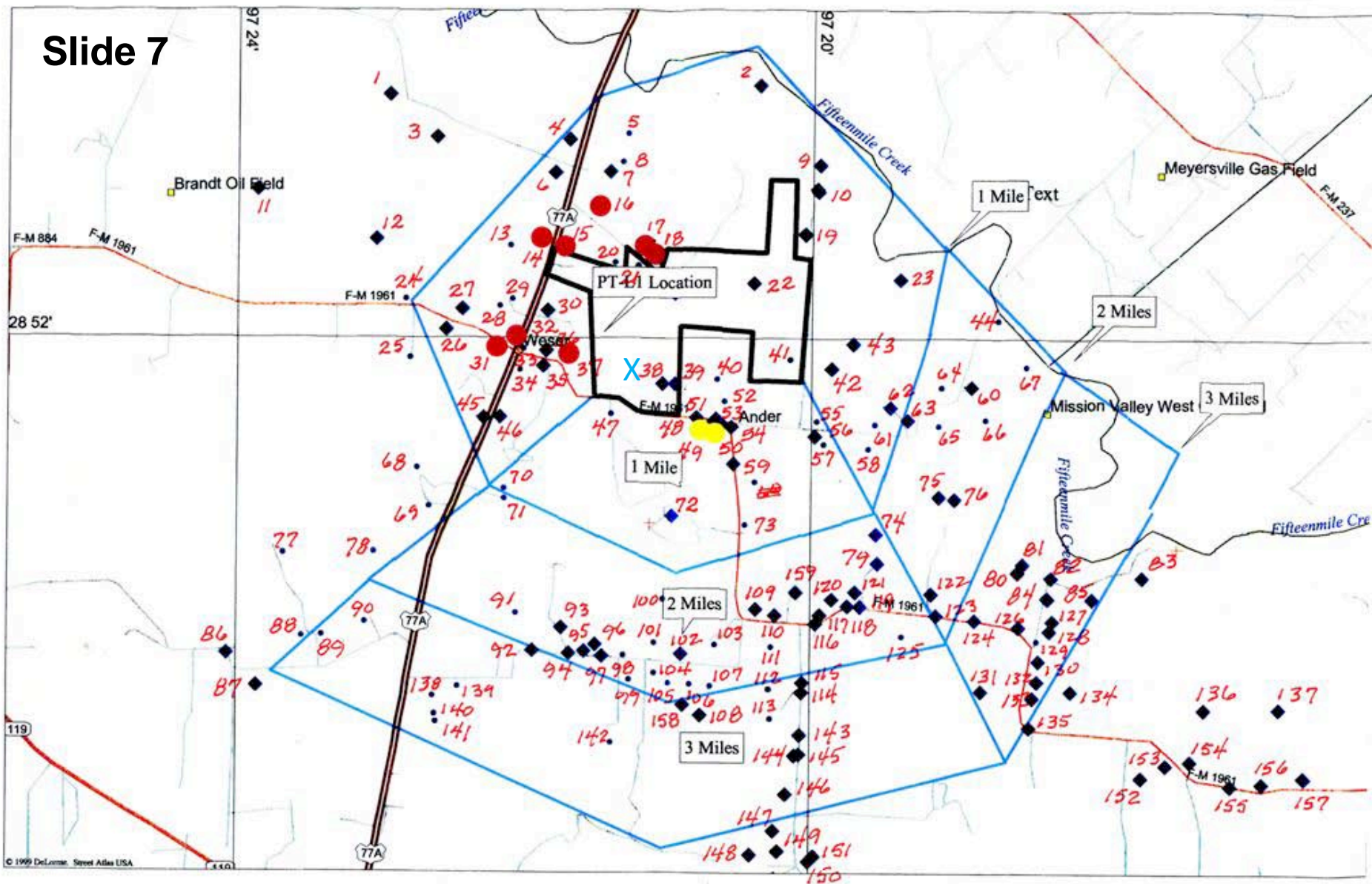


Slide 6



On this Map:
Location of
PTW-14 Well Near the
Geographical Center of PA-1

Slide 7



X Approximate Location of PA-1's PTW-14 Well

-- Goliad Project Permit Area and Surrounding Water Supply Wells

Slide 8



Re: A Request

Ted Long to: Jose Torres

04/19/2011 02:51 PM

[Show Details](#)

Mr. Torres,

I received a correction from the Water District today, the amount of water used in rural households is estimated to be 80 gallons per person per day not the 42 previously mentioned, so the total estimated usage should be 383 gallons per day.

Sorry for any inconvenience.

Ted

On Mon, Apr 18, 2011 at 2:46 PM, Ted Long <tlong@goliadcountytexas.gov> wrote:

Mr. Torres,

The drillers field notes show that the well was drilled on 6-3-93 with formation as follows:

0-4 surface soil

4-44 sand and caliche

44-87 yellow clay

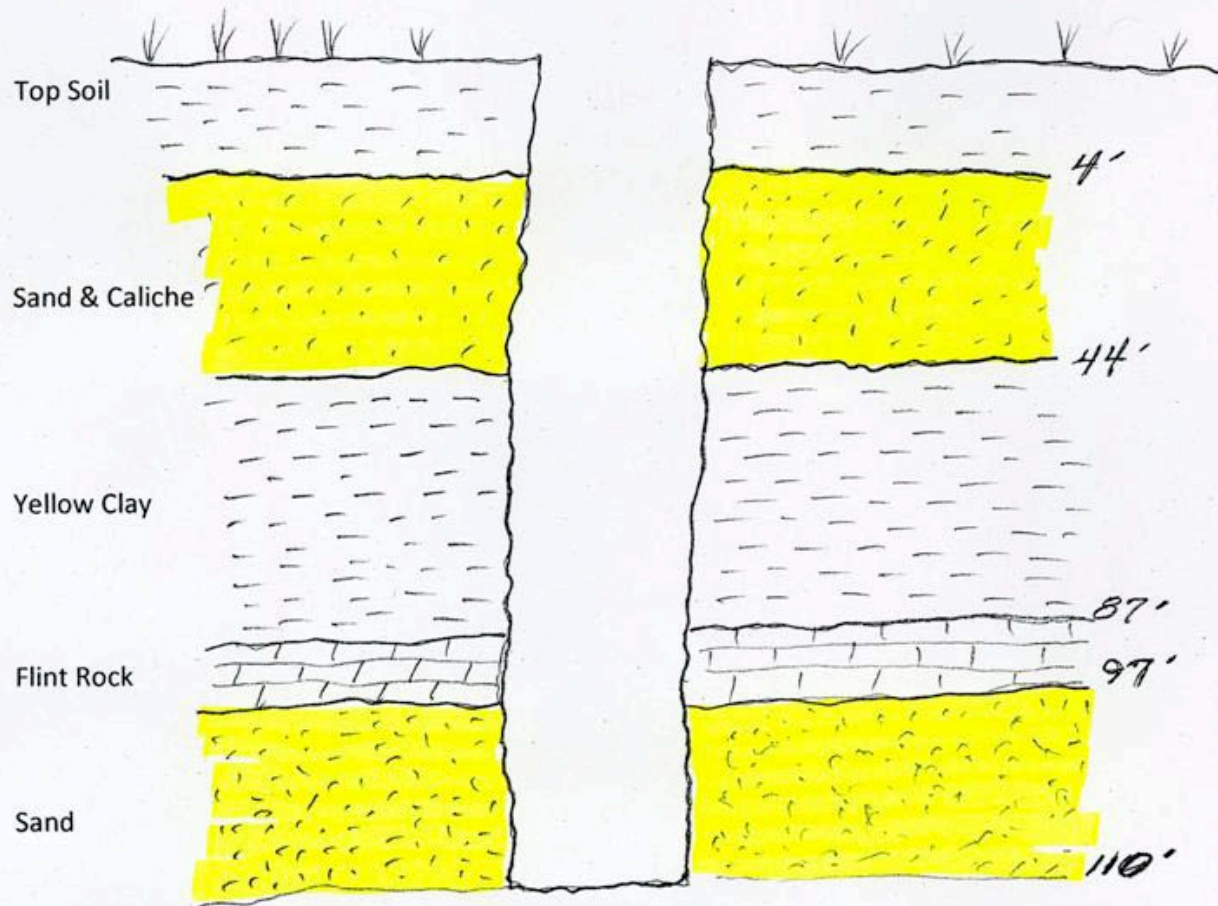
87-97 flint rock

97-110 sand

Lithology Description for Water Supply Well and Estimated Per Capita Water Consumption Report

Commissioner Ted Long's Water Supply Well

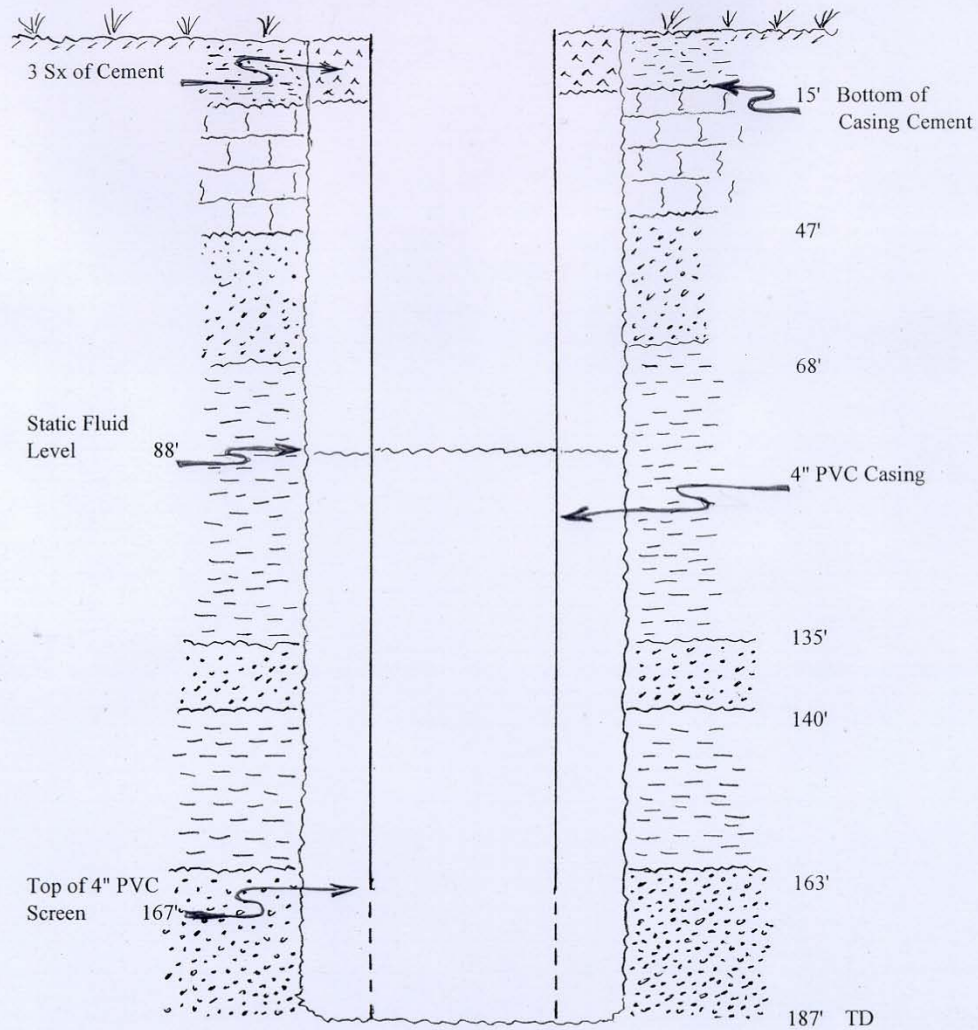
Goliad Project, Goliad County, Texas
(Estimated Ground Elevation: 208 Ft)



Slide 10

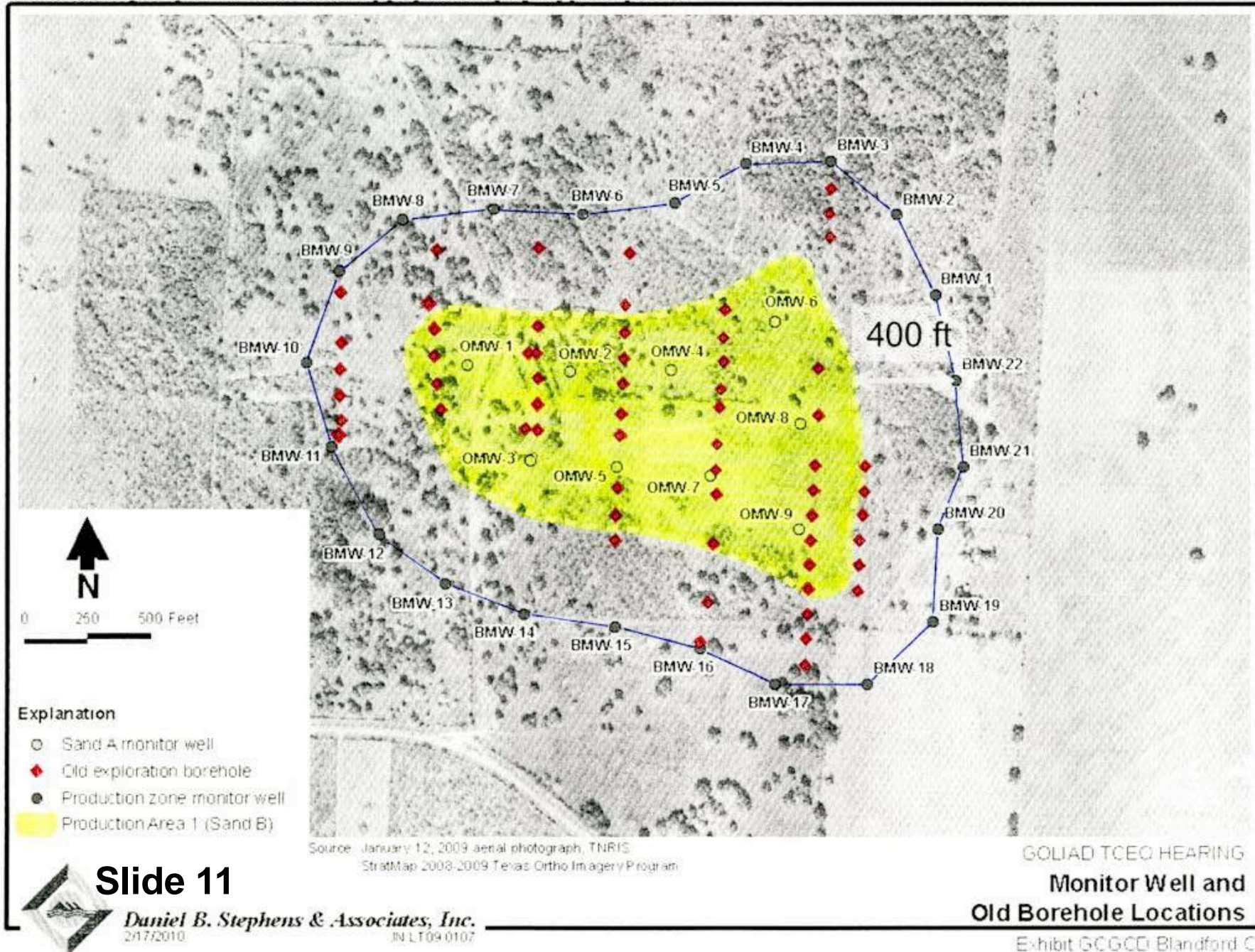
SAMPLE DOMESTIC WATER SUPPLY WELL

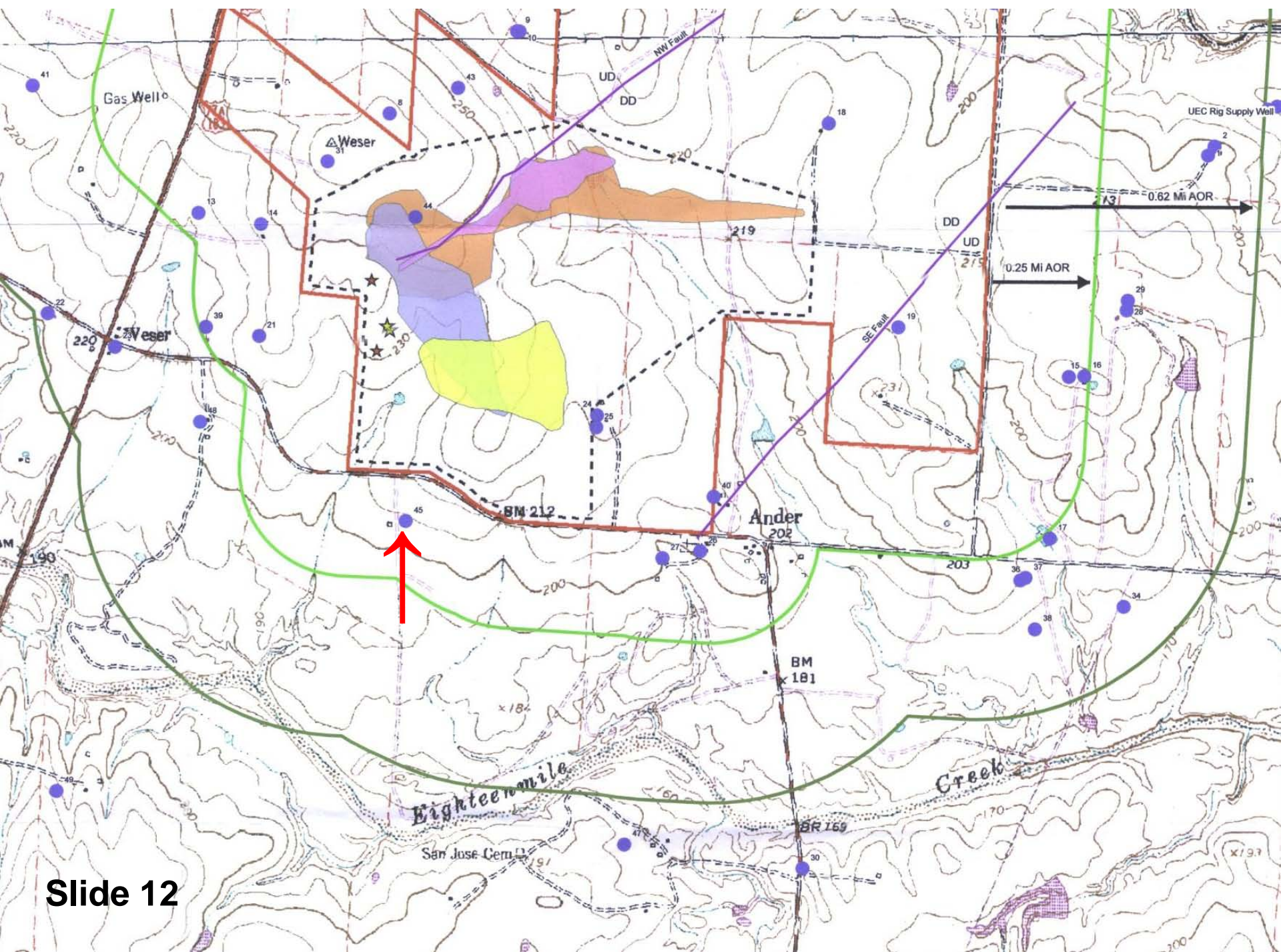
WELL SCHEMATIC



Drawing Not To Scale

**Sample of Water
Well Completion
In the Goliad Project
General Area**





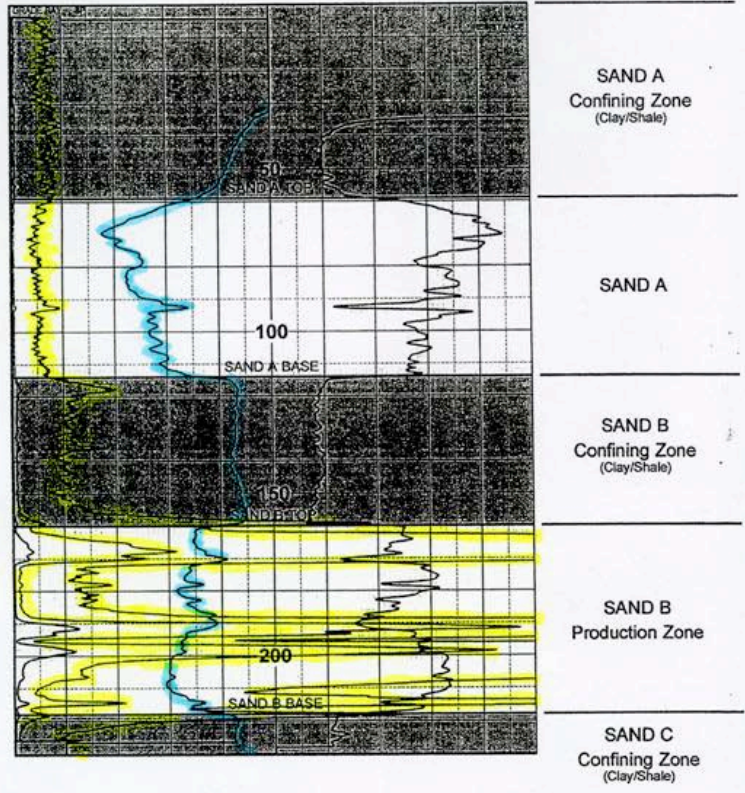
Slide 12

Slide 13

32201-CBP-1/PTW-14



TD 228 FT
GL 237.7 FT

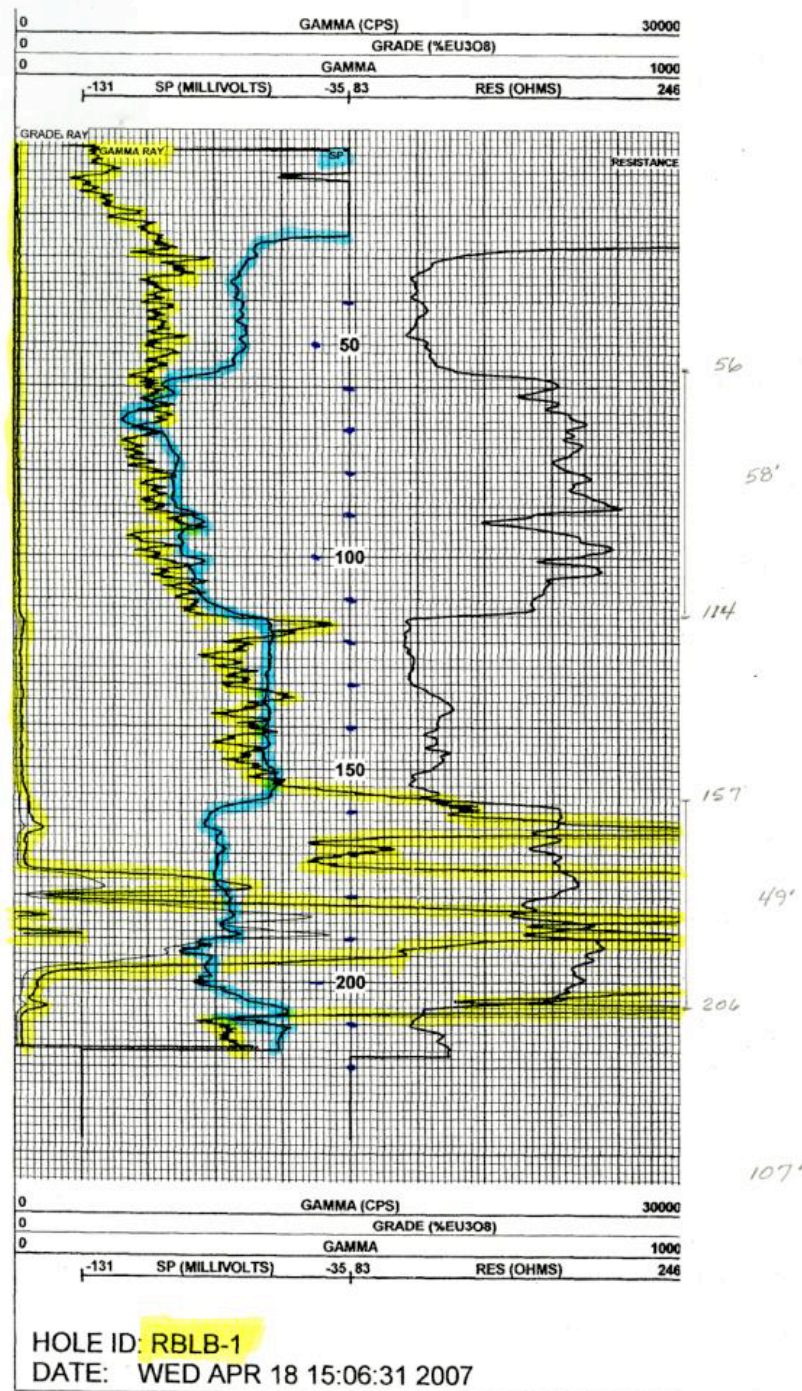


TD = Total Depth
GL = Ground Level
FT = Feet

Mini-Logs	
UEC Uranium Energy Corp.	
Drawn by: C. Roderick, UEC	DATE: 3-18-09
Checked by: miniLogs_PTWA_CBP1_3-18-09.dwg	SCALE: See Scale Bar

Slide 14

RBLB-1 Well in PA-1:
Gamma Ray Curve
Identifies Uranium
Bearing "B" Sand



Goliad Project, Goliad County, TX

Impact of Surrounding Area's Water Supply Wells on Aquifer at PA-1*

(All Wells Assumed Producing at 10 BPD (420 GPD)) **

	<-----	Drawdown - Ft	----->
Perm (Darcies)	DW Wells (106 Wells)	Aggie/Livestock Wells (54 Wells)	Total Drawdown (160 Wells)
1.0	-7.606544	-4.064976	-11.671520
2.0	-4.246598	-2.258514	-6.505112
3.0	-3.004101	-1.593859	-4.597960
4.7	-2.039846	-1.079702	-3.119548

* Permitted Production Area No. 1

** 30 Years Production

Goliad Project, Goliad County, TX

Impact of Surrounding Area's Water Supply Wells on Aquifer at PA-1*

(DW Wells Assumed Producing at 10 BPD (420 GPD))

(Aggie/Livestock Wells Assumed Producing at 20 BPD)

	<-----	Drawdown - Ft	----->
Perm (Darcies)	DW Wells (106 Wells)	Aggie/Livestock Wells (54 Wells)	Total Drawdown (160 Wells)
1.0	-7.606544	-8.129943	-15.736487
2.0	-4.246598	-4.517025	-8.763623
3.0	-3.004101	-3.187730	-6.191831
4.7	-2.039846	-2.159401	-4.199247

* Permitted Production Area No. 1

GOLIAD PROJECT

Examples of Drawdown Computation Results for Individual Wells

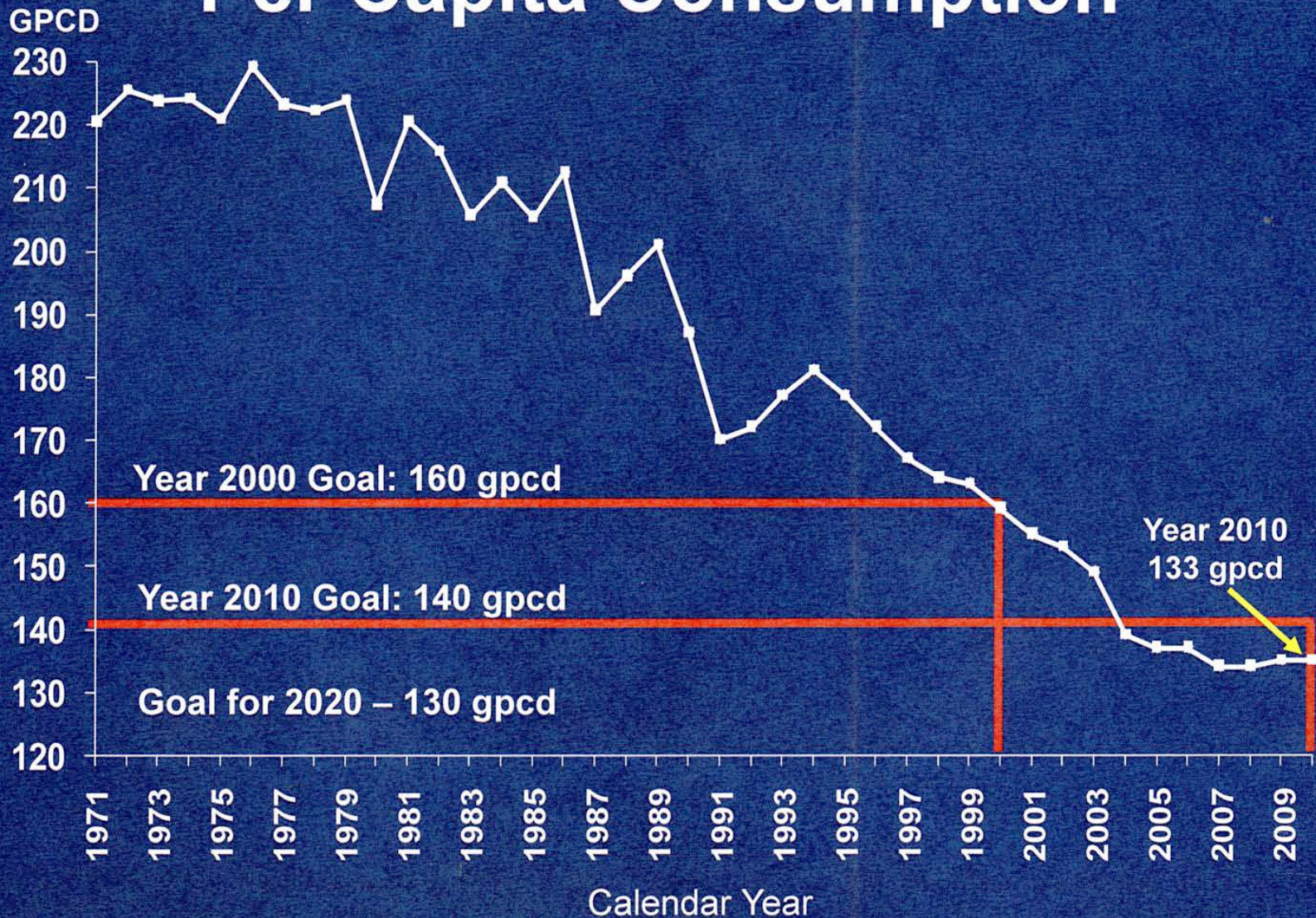
List Includes the 10 Closest and 10 Most Distant WSWs From PA-1's TPW-14 Well

WSW MAP ID	WELL USE	WSW EST. FEET TO TPW-14	WSW EST. DRAWDOWN PSI	WSW EST. DRAWDOWN FT
38	R*	1199.4	-0.053776	-0.123654
39	R	1596.7	-0.050767	-0.116736
47	B	2020.8	-0.048290	-0.111040
37	R	2493.7	-0.046079	-0.105955
51	R	2955.9	-0.044291	-0.101844
40	B	3030.5	-0.044029	-0.101241
36	R	3339.8	-0.043007	-0.098891
48	R	3378.2	-0.042887	-0.098615
35	R	3398.4	-0.042824	-0.098471
53	R	3545.3	-0.042471	-0.097658
134	R	19989.8	-0.024219	-0.055689
83	R	20154.3	-0.024133	-0.055492
152	R	23972.0	-0.022321	-0.051326
153	R	24400.4	-0.022136	-0.050901
136	R	24401.2	-0.022136	-0.050900
154	R	25031.0	-0.021870	-0.050289
155	R	26772.3	-0.021170	-0.048678
137	R	26779.5	-0.021167	-0.048672
156	R	27680.0	-0.020823	-0.047880
157	R	28851.9	-0.020392	-0.046889

10 BPD/Well
10950 Days
0.75 cp
35 % Porosity
1.0 Darcy
100 Ft Thickness

* R Drinking Water Well
B Agriculture/Livestock Well

Per Capita Consumption



The proposed uranium in-situ mining project is located in the northwest corner of Goliad County in the Evangeline component of the Gulf Coast Aquifer and close to the boundary with DeWitt and Victoria Counties. The requested aquifer exemption is for 423.8 acres from a depth of 45 feet to 404 feet. This requested aquifer exemption includes all four sands of the Evangeline component of the Gulf Coast Aquifer in that area. These four sands are what supply the drinking water to the area. Using an average thickness of 45 feet per sand and a porosity of 28 percent, this equates to 21,360 acre-feet of groundwater. This 21,360 acre-feet body of groundwater has migrated, is migrating, and will continue to migrate. The proposed mining is in the recharge area of the Gulf Coast Aquifer and annual recharge is approximately 12,000 acre-feet. This 21,360 acre-feet of groundwater constitutes three plus years of groundwater use in Goliad County. Data shows that this 21,360 acre-feet is good quality water and is not contaminated.

Estimated Water In Place in Proposed Exempted Aquifer (A, B, C and D Sands)

$$21360 \text{ AcFt} = 165.8 \text{ MMBbls} = 6.96 \text{ BGals}$$

Estimated 30 yr. Cumulative Production from WSWs in Slide 7 (A & B Sands)

$$2257 \text{ AcFt} = 17.5 \text{ MMBbls} = 735 \text{ MMGals}$$

R E F E R E N C E S

- (1) Hay, Richard - A Numerical Groundwater Flow Model of the Gulf Coast Aquifer Along the South Texas Gulf Coast. 1999
- (2) TWDB Report 173: Ground–Water Resources of Kleberg, Kenedy, and Southern Jim Wells Counties, Texas. 1973